



NOAA Pacific Services Center

OUR COASTS, OUR FUTURE

B-WET Hawai'i: Bay Watershed Education and Training

B-WET STORIES

Moloka'i High School

Partnered with The Nature Conservancy, Moloka'i High School provides meaningful outdoor experiences to students through the "Waihona Mau a Mau ("For an Everlasting Resource Base)" project. The project's vision is to use native Hawaiian epistemologies to create an educated population capable of ensuring the perpetuation of Moloka'i's marine, estuary, and watershed ecosystems. Students collect data to assess the environmental quality and health of Moloka'i's streams, forests, and shorelines, and showcase their discoveries to other schools and communities through presentations, multi-media, print, and Native Hawaiian culture and art forms.

Community Conservation Network

The Community Conservation Network's (CCN) "Traditional Wisdom Project," funded in 2004 and 2005, enhances youth involvement in marine management through engaging ways to gather and apply knowledge from Hawaiian elders (*kupuna*) about the past conditions of marine resources. Students gather in-field information about the current status of marine resources and develop strategies and activities to improve marine management. The students document elders' knowledge and their own activities with multi-media technology.

The project focuses on providing teachers, community members, and youth with the skills and motivation to pursue a series of inquiries followed by direct management action. These questions are answered as *kupuna* and youth work together in the marine environment. This inquiry-based strategy, consistent with the Hawai'i Content and Performance Standards, is linked to in-classroom activities at schools in the communities participating in the project.

Hawai'i Institute of Marine Biology

The Hawai'i Institute of Marine Biology's (HIMB) project "Watershed to Coral Health (WAtCH)" teaches students to assess and monitor coral reef health and familiarizes them with how coral research is conducted in Kaneohe Bay, O'ahu, the largest protected bay in the state. The students work collaboratively as teams on local projects, which include the topics such as the impacts of invasive algae and coral bleaching.

Through these projects, students acquire skills in data collection methods, assessment, evaluation, and organization, and present their research through various scientific and public media. In the course of this work, they learn about the effects of pollution on coral health. The project provides students with the tools necessary to form a firm understanding of the challenges faced in protecting and managing coral reefs and how current research is attempting to gain a better understanding of possible conservation and management methods.



Waimea Valley Audubon Society

The Waimea Valley Audubon Society's project was funded in 2004 and 2005, and includes two distinct endeavors in Waimea Valley on the north shore of O'ahu: "Estuary Encounters" (now titled "Go with the Flow") and the "Service Learning Project." The former is a site-based, hands-on field trip program for lower elementary school students. The Service Learning Project is targeted at older students and non-formal educational groups, and engages participants in best management practices while helping to maintain the health of Waimea Valley in the context of traditional Hawaiian ecosystem management.

Bishop Museum

The Hawaii Biological Survey expanded upon its ongoing collaborative educational and research program in Waipi'o Valley, Hawai'i Island, which now engages Hawaiian and local students in the ongoing restoration of one of Hawai'i's most threatened native ecosystems, freshwater and wetland stream habitats. "Student scientists" work with Bishop Museum scientist to assess impact of stream flow restoration through hands-on environmental education, gain insight of Hawaiian stream ecology and learn the latest in scientific techniques involved in monitoring aquatic ecosystems. The program includes field trips into the Valley to collect data supporting curriculum which teachers pursue in the classroom. Additionally, students work in teams to conduct studies, use an interactive web site to monitor research progress, view data, download lesson plans and field reports and participate in "virtual" stream activities.

Association of Fishponds of Maui ('Ao'ao O Na Loko I'a O Maui)

Engages Middle and high school student on the islands of Maui, Moloka'i and Lana'i in an outdoor scientific research project, using technology based monitoring methods of near-shore habitats both inside and outside fishponds found within the Sanctuary waters. Additionally, this program will educate students and teachers about the history, culture and practices of fishponds in Hawai'i. Monitoring protocols is modeled after the LIMPETS protocols used by other Sanctuary programs. Students will assess and monitor health of near-shore habitats in and outside of the fishpond, conduct species count, address water quality, and be involved in collecting, recording and analyzing data. Students will also be involved in comparing near-shore habitats in both fishponds and outside of fishponds.

Hawai'i Wildlife Fund

The Hawai'i Wildlife Fund's (HWF) "Wild Hawai'i" project was funded in 2004 and 2005, and provides opportunities for students in Maui County to investigate near shore waters and streams, rainforest trails and sacred heiau sites with professional guides. "Wild Hawai'i" introduces students to the *ahupua'a* (watershed) system where they explore the factors that impact streams, pools, wetlands, and other near shore ecosystems, and investigate methods to sustain Maui's natural resources, resulting in responsible actions and stewardship in their communities. The project fosters a learning environment that encourages a close relationship with Hawai'i's natural world and develops an understanding of the importance of sustaining these resources through an immersive, hands-on learning program in the field that has practical value for intermediate and high school teachers and students.

In addition, "Wild Hawai'i" is creating an area on its Website that will compile letters, journal entries and water testing data as it is received from each group. Presenting an ongoing record of water quality data on the website will not only provide students with a sense of continuity, but also encourage comprehensive reports using data collected from all groups over time.

